



// SALMON FISHERY STATISTICS – 2012 SEASON



// SUMMARY

- The total reported rod catch (retained and released) of wild salmon and grilse for 2012 is 86,013. It is the tenth highest on record and is 95% of the previous 5-year average.
- The proportion of the rod catch accounted for by catch and release is the highest recorded. In 2012, 91% of rod caught spring salmon was released, as was 74% of the annual rod catch.
- Trends in rod catch vary among individual stock components. Reported catch of spring salmon had been in general decline over much of the time since records began in 1952, but appears now to have stabilised at historically low levels. Grilse catch has generally increased over the same time period, whereas little overall trend is evident in catches of summer salmon.
- There are also clear differences among geographic regions in the relative strength of the 2012 rod catch. The catches in 5 of the 9 regions are ranked within the top 25% of their respective time series. These regions (East, North East, North, North West and Outer Hebrides) are widely geographically distributed across Scotland. Catches from the Moray Firth and West Coast regions produced the lowest rank values, but no region reported catches in the lowest 25% of their time series.
- Catch and effort for both fixed engine and net & coble fisheries remain at historically low levels. Reported catch in each fishery was 12,584 and 3,646; 5% and 1% of the maximum reported in the respective time series. Fishing effort in these fisheries was 236.5 trap months and 78.5 crew months; the fifth and sixth lowest, respectively, since records began in 1952.
- Salmon and grilse of farmed origin represented 0.3% of the total catch in 2012. Their distribution was highly uneven, the North, North West and West regions accounting for 94% of reports.
- The information presented here is a summary of the data from 1,864 forms returned from 2,018 issued (92% return rate) for the 2012 season. Return rates for the previous 10 years have been between 93% and 96%

Current status of stocks

The total rod catch (retained and released) in 2012 was similar to the previous 5-year average. Taken over the time series since 1952, annual rod catch has increased and is currently at the high end of the observed range. This may be taken as evidence of an increase in the numbers of fish entering fresh water and, given the high levels of reported catch and release, escaping to spawn.

However, the status of stocks on smaller geographical scales (e.g. among or within catchments) may differ both from each other and also from the overall assessments presented above. The long term decline in the total rod catch of spring salmon suggests that the populations associated with this stock component may be particularly weak although it has stabilised in recent years.

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// CATCH AND EFFORT REPORTED BY SCOTTISH SALMON FISHERIES IN 2012

The rod and line fishery

A total of 22,682 wild salmon and grilse were reported caught and retained in the rod and line fishery. A further 63,331 wild salmon and grilse were reported caught and released. The combined retained and released rod catch is 95% of the previous 5-year average. We have no time series of fishing effort information associated with the rod and line fishery.

Annual rod catch has increased over the period since 1952 and is currently at the high end of the observed range (Figure 1). This increase in rod catch, together with the decline in the net fisheries (Figures 4 and 5), has resulted in the total rod catch comprising 84% of the total Scottish catch in 2012 compared to 11% in 1952.

Trends in total rod catch vary among individual stock components (Figure 2). Spring salmon catch

(for the purposes of this report defined as multi sea-winter fish taken before 1 May) has generally declined over the period. The catch has stabilised in recent years and remains at a historically low level. Grilse catch, on the other hand, has generally increased over this same period while the summer salmon catch (multi sea-winter fish taken on or after 1 May) shows little overall trend.

Catch and release

The proportion of the rod catch accounted for by catch and release has generally increased since 1994, when such information was first recorded. In 2012, 74% of the annual rod catch was released compared to less than 8% in 1994. Similarly, less than 1% of rod caught spring salmon were released in 1994 while 91% were released in 2012 (Figure 3).

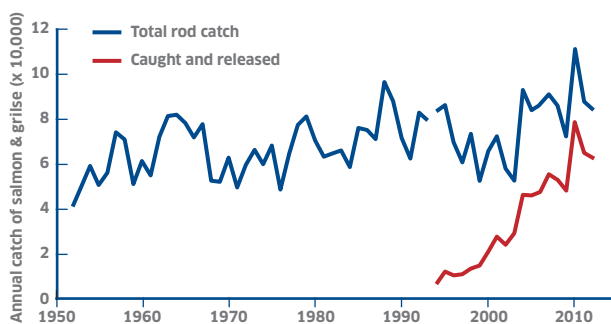


FIGURE 1
ROD AND LINE FISHERY.

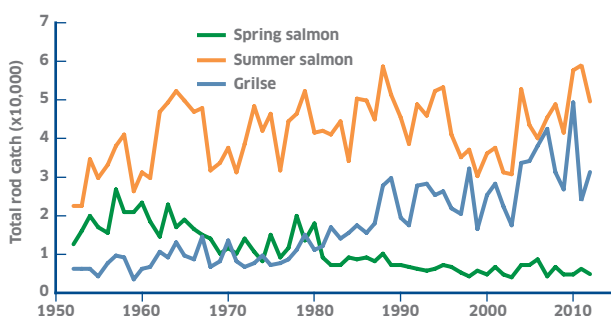


FIGURE 2
TRENDS IN STOCK COMPONENTS, ROD AND LINE FISHERY.

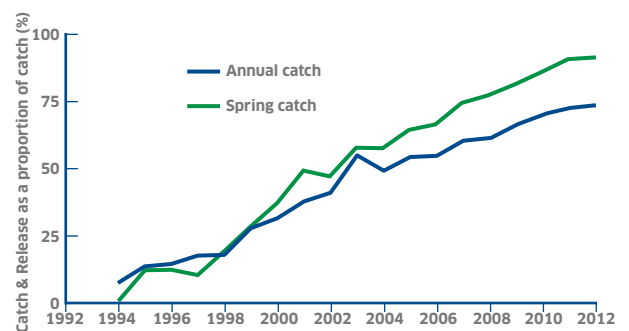


FIGURE 3
CATCH AND RELEASE, ROD AND LINE FISHERY.

Comparison of catches among geographic regions

Analysis at finer geographical scales reveals differences among regions in the relative strength of 2012 catches compared to available historical data. Annual reported rod catch (retained and released) for each region was ranked over the time series from 1952 to the present (1=lowest, 61=highest). The rank values for the 2012 catch for each region are shown in Figure 4. Orkney and Shetland have been omitted from this regional analysis as they are not considered to have been fully covered by the survey over much of the time series.

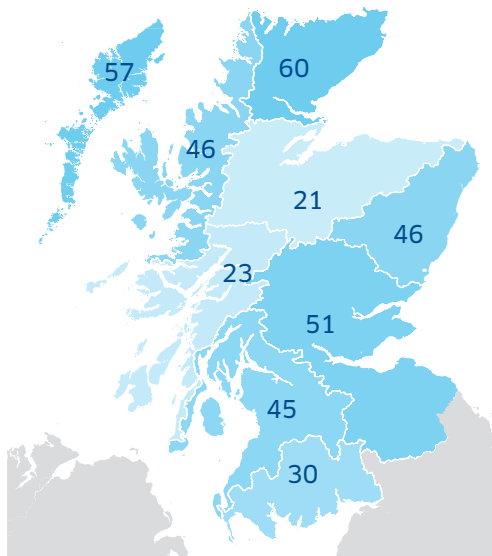


FIGURE 4
RELATIVE STRENGTH OF 2012 ROD CATCH AMONG REGIONS

There are clear differences among geographic regions in the relative strength of the 2012 rod catch. The catches in 5 of the 9 regions are ranked within the top 25% of their respective time series. These regions (East, North East, North, North West and Outer Hebrides) are widely geographically distributed across Scotland. Catches from the Moray Firth and West Coast regions produced the lowest rank values, but no region reported catches in the lowest 25% of their time series. Scottish regions are shown in MS Topic Sheet 67 (<http://www.scotland.gov.uk/Topics/marine/science/Publications/TopicSheets/tslist>).

Farmed salmon and grilse

A total of 257 fish of farmed origin were reported caught by all methods in 2012. Salmon and grilse of farmed origin represented 0.3% of the total number of salmon and grilse caught, but the distribution of farmed origin fish was highly uneven, the North, North West and West regions accounting for 94% of reports. Scottish regions are shown in MS Topic Sheet 67.

The net fisheries

A total of 12,584 wild salmon and grilse were reported caught and retained in the fixed engine fishery, and the national index of netting effort was 236.5 trap months. A total of 3,646 wild salmon and grilse were reported caught and retained in the net & coble fishery from a reported effort of 78.5 crew months.

Reported catch and effort have declined in both net fisheries over much of the period covered by our records and remain at historically low levels

(Figures 5 & 6). In 2012, fishing effort in the fixed engine and net & coble fisheries was the fifth and sixth lowest, respectively, since records began in 1952. Reported catch in each fishery was 5% and 1% of the maximum reported in the respective time series.

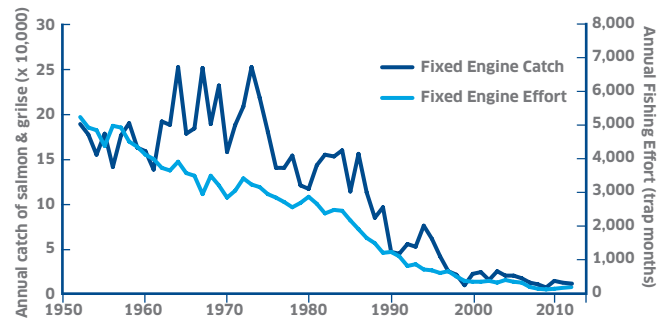


FIGURE 5
FIXED ENGINE FISHERY.

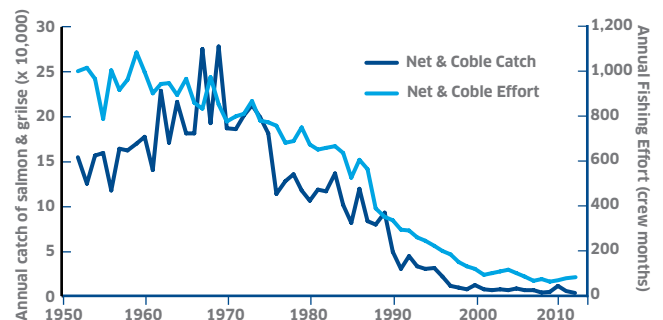


FIGURE 6
NET AND COBLE FISHERY.

// INTERPRETATION

Recent events

The reported rod catch in 2012 was very similar to that in 2011 and was 95% of the previous 5-year average.

It should be noted, however, that annual changes in catch are not a simple reflection of changes in the underlying numbers of fish returning to Scottish waters. Both catch size and the allocation of catch among fishing methods may be influenced by many factors, particularly fishing effort and river flows. Thus, when inferring the status of stocks from catch data, it is important to consider trends over a number of years as well as focussing on catch levels for the most recent year.

The decline in net fisheries and in the numbers of salmon returning to home waters

Both fixed engine and net & coble fisheries have experienced considerable decline over the period

since 1952 and catch and effort in both fisheries remain at historically low levels.

Marine survival of salmon has declined substantially over the period covered by the catch statistics. This phenomenon is not unique to Scotland and similar declines have been detected in a number of monitored sites on both sides of the North Atlantic.

The numbers of salmon entering rivers appear to have increased

In contrast to the net fisheries, the rod and line catch has increased since 1952, when records began. Assuming no trends in exploitation rates (the percentage of available fish capture) over time, the catches provide insights into the status of salmon stocks.

Declines in the marine survival of salmon have led to lower numbers returning to the Scottish coast over much of the time series. Reductions in the netting industry over this period allowed a greater proportion of these fish to enter rivers, however, resulting in an increase in the numbers of fish available to the rod fisheries and escaping to spawn. The decline in the netting industry thus acted as a buffer for the rod fishery as marine survival declined.

Net catches are now around 5% or less of those taken in the past and have remained at this level for the last decade while annual rod catches have continued to increase. In small part, an increase in rod catch would be expected as catch-and-release has increased. However, observations of salmon numbers at Marine Scotland monitoring sites suggest that overall marine survival of Scottish salmon has now stabilised or is increasing.

The number of salmon escaping to spawn is an important factor in determining whether sufficient eggs have been deposited to use the rearing habitat fully and hence maximise subsequent smolt production. However, it is not just the number but also the size and condition of salmon that determines the total numbers and also, perhaps, quality of eggs deposited. Monitoring work

indicates a decline in both the size and condition of salmon returning to Scottish waters which may act to reduce the average numbers of eggs carried by individuals.

Trends in abundance vary among stock components

There are clear differences in trends of catches of individual stock components over the time period that these stocks have been monitored. Thus, although rod catch as a whole has increased over the time series, the numbers of spring salmon in the catch have generally declined since the 1950s, and although spring salmon catch has stabilised in recent years, it remains at a historically low level.

Thus interpretation of catch information at finer geographic scales (e.g. particular components of the returning stock) may lead to interpretations of stock status which differ from an assessment based on total annual catch.

Downloads

Topic sheet no. 67 explains how we collect the catch statistics and is available for download at <http://www.scotland.gov.uk/Topics/marine/science/Publications/TopicSheets/tslist>

Summary data for the 2012 fishing season are available for download at <http://www.scotland.gov.uk/Topics/marine/science/Publications/stats/SalmonSeaTroutCatches>

The data provided for download are the best available at the time of publication. Our records are amended when further information is provided and the most accurate historical data may be obtained directly from us.

Contact

If you have a specific request for Scottish salmon and sea trout fishery information, please contact us directly at ms.catchform@scotland.gsi.gov.uk

Register online at <http://register.scotland.gov.uk/Subscribe/Step1> to receive the latest email news alerts, daily digest, weekly roundup or topic newsletters.

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ISBN : 978-1-78256-910-7
ISSN : 0264-116X

APS Group
DPPAS14798 (09/13)